WHAT IS CLAIMED IS:

1. A method for aerosolizing a dose of insulin, said method comprising:

providing insulin as a dry powder;

dispersing an amount of the dry powder in a gas stream to form an aerosol; and

capturing the aerosol in a chamber having a mouthpiece for subsequent inhalation by a patient.

2. A method as in claim 1, wherein the insulin is substantially free from penetration enhancers.

3. A method as in claim 1, wherein the insulin is present in a dry powder carrier at a weight concentration in the range from about 5% to 99%.

4. A method as in claim 3, wherein the powder carrier comprises a carbohydrate, organic salt, amino acid, peptide, or protein.

5. A method as in claim 1, wherein the insulin dry powder comprises particles having an average size below 10 μm.

6. A method as in claim 1, wherein the dry powder comprises individual particles including both insulin and a carrier material.

7. A method a in claim 6, wherein the insulin is present in the individual particles at from 5% to 99% by weight.

8. An improved method for the respiratory delivery of insulin, wherein the improvement comprises delivering the insulin as a dry powder.

9. An improved method as in claim 8, wherein the insulin is substantially free from penetration enhancers.

10. An improved method as in claim 8, wherein the insulin is present in a dry powder carrier at a weight concentration in the range from about 10% to 99%.

11. An improved method as in claim 10, wherein the powder carrier comprises a carbohydrate, organic salt, amino acid, peptide, or protein.

12. An improved method as in claim 8, wherein the insulin dry powder comprises particles having an average size below 10 μm.

13. An improved method as in claim 8, wherein the dry powder comprises individual particles including both insulin and a carrier material.

14. An improved method as in claim 13, wherein the insulin is present in the individual particles at from 5% to 99% by weight.

15. A method for preparing a stable, dry powder insulin composition, said method comprising:

dissolving insulin in an aqueous buffer to form a solution; and

spray drying the solution to produce substantially amorphous particles having an average size below 10 μm.

16. A method as in claim 15, wherein the insulin is dissolved in a aqueous buffer together with a pharmaceutical carrier, wherein a dry powder having insulin present in individual particles at from 5% to 99% by weight is produced upon spray drying.

17. A method as in claim 16, wherein the pharmaceutical carrier is a carbohydrate, organic salt, amino acid, peptide, or protein which produces a powder upon spray drying.

18. A method as in claim 17, wherein the carbohydrate is selected from the group consisting of mannitol, raffinose, lactose, malto dextrin and trehalose.

19. A method as in claim 17, wherein the organic salt is selected from the group consisting of sodium citrate, sodium acetate, and sodium ascorbate.

20. An insulin composition for pulmonary delivery, said composition comprising individual particles which include insulin present at from 5% to 99% by weight in a pharmaceutical carrier material and have a size below 10 μm.

21. An insulin composition as in claim 20, wherein the composition is substantially free from penetration enhancers.

22. An insulin composition as in claim 20, wherein the pharmaceutical carrier material comprises a carbohydrate selected from the group consisting of mannitol, raffinose, lactose, malto dextrin, and trehalose.

23. An insulin composition as in claim 20, wherein the pharmaceutical carrier material comprises an organic salt selected from the group consisting of sodium citrate, sodium gluconate, and sodium ascorbate.

24. An insulin composition produced by the method of claim 15.

25. An insulin composition consisting essentially of dry powder insulin having an average particle size below 10 μm.